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PTO/SB/21 (09-06)

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## TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

5

Application Number	11/585,061
Filing Date	October 23, 2006
First Named Inventor	Justin S. Dyer
Art Unit	
Examiner Name	
Attorney Docket Number	KSU-002

### ENCLOSURES (Check all that apply)

- |   |  |   |
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Remarks

### SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name			
Signature			
Printed name	Steven J. Shattil		
Date	04/25/2007	Reg. No.	40,170

### CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

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Typed or printed name	Steven J. Shattil	Date	04/25/2007

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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U.S. Patent Application: 11/585,061  
Filing Date: October 23, 2006  
First Named Inventor: Justin S. Dyer  
Docket Number: KSU-002

Date: April 25, 2007

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

### **Information Disclosure Statement**

Pursuant to 37 C.F.R. §1.56, 1.97, and 1.98, this Information Disclosure Statement is submitted in the above-identified patent application. A listing of documents to be published on the face of any patent granted from this application is submitted herewith on Form PTO 1449. Any other documents or information submitted for consideration by the Examiner are listed in this paper. A copy of each foreign patent and publication, or portion thereof listed or herein identified, is submitted herewith, except that a copy of any U.S. patent application identified herein or any patent publication or other information listed herein cited or submitted in a prior application relied upon for an earlier filing date under 35 U.S.C. §120 and identified below, is not submitted.

### **Certification**

This Information Disclosure Statement is submitted prior to the mailing date of the first Office Action on the merits received by Applicant in the above-identified patent application.

Respectfully submitted

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
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Sheet 1 of 3

**Complete if Known**

Application Number	
Filing Date	October 23, 2006
First Named Inventor	Justin S. Dyer
Art Unit	
Examiner Name	
Attorney Docket Number	KSU002

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
		US- 20050237920	10-27-2005	Howard	
		US- 20060198459	09-07-2006	Fischer	
		US- 20070014378	01-18-2007	Parhi	
		US- 20060039489	02-23-2006	Ikram	
		US- 20060029157	02-09-2006	Dabak	
		US- 20060023803	02-02-2006	Perlman	
		US- 20050281357	12-22-2005	Bouvet	
		US- 20050213686	09-29-2005	Love	
		US- 20050032521	02-10-2005	Lee	
		US- 20050286663	12-29-2005	Poon	
		US- 20050281351	12-22-2005	Jeong	
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		US- 20030072380	04-17-2003	Huang	
		US- 20060210070	09-21-2006	Reznik	
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		US- 20050147183	07-07-2005	Willink	
		US- 20060120478	06-08-2006	Kim	
		US- 20060281421	12-14-2006	Pan	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				

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		Number-Kind Code <sup>2</sup> (if known)			
		US- 6,493,399	12-10-2002	Xia	
		US- 7,190,734	03-13-2007	Giannakis	
		US- 7,200,180	04-03-2007	Verbin	
		US- 7,133,465	11-07-2006	McLaughlin	
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		US- 6,987,803	01-17-2006	Frenkel	
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		US- 5,396,519	03-07-1995	Betts	
		US- 7,149,238	12-12-2006	Agee	
		US- 6,584,144	06-24-2003	Alamouti	
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		<b>Filing Date</b>		October 23, 2006	
		<b>First Named Inventor</b>		Justin S. Dyer	
		<b>Art Unit</b>			
		<b>Examiner Name</b>			
Sheet	3	of	3	<b>Attorney Docket Number</b>	KSU002

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	A1	GRESSET, N, et al., "Linear precoding under iterative processing for multiple antenna channels," First Int. Symp. Control, Comm. and Signal Proc., 2004, pp: 563 – 566.	
	A2	BARRETO, A.N., "Joint signal precoding in the downlink of spread-spectrum systems," IEEE Trans. Wireless Comm., Vol. 2, No. 3, May 2003, pp: 511 – 518.	
	A3	HJORUNGNES,A., "Precoding of Orthogonal Space-Time Block Codes in Arbitrarily Correlated MIMO Channels: Iterative and Closed-Form Solutions," IEEE Trans. Wireless Comm., Vol.	
	A4	SKJEVLING, H., et al., "Precoding for Distributed Space-Time Codes in Cooperative Diversity-Based Downlink," Proc. IEEE Int. Conf. on Comm., ICC 2006, Istanbul, Turkey, June 20	
	A5	HJORUNGNES,A., "Exact SER-Precoding of Orthogonal Space-Time Block Coded Correlated MIMO Channels: An Iterative Approach," Proc. 6th IEEE Nordic Sig. Proc. Symp., NORSIG 2004,	
	A6	CASTRO, P.M., et al., "Adaptive precoding in MIMO wireless communication systems using blind channel prediction over frequency selective fading channels," 13th Workshop on Sta	

<b>Examiner Signature</b>		<b>Date Considered</b>	
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